

ABSTRACT OF THE DISCLOSURE

One or more implantable system control units (SCU) apply one or more stimulating drugs and/or electrical pulses to one or more predetermined areas affecting circulatory perfusion. The SCU preferably includes a programmable memory for storing

5 data and/or control parameters, and preferably uses a power source/storage device, such as a rechargeable battery. If necessary, periodic recharging of such a power source/storage device is accomplished, for example, by inductive coupling with an external appliance. The SCU provides a means of stimulating a nerve(s) or other tissue with electrical and/or infusion pulses when desired, without the need for external

10 appliances during the stimulation session. When necessary, external appliances are used for the transmission of data to and/or from the SCU(s) and/or for the transmission of power. In a preferred embodiment, the system is capable of open- and closed-loop operation. In closed-loop operation, at least one SCU includes a sensor, and the sensed condition is used to adjust electrical and/or drug stimulation parameters.